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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

In the Matter of )  
 )  
Allocation of Spectrum Below ) ET Docket No. 94-32  
5 GHz Transferred from )  
Federal Government Use )

COMMENTS

AT&T Corp. ("AT&T") respectfully submits the following comments in response to the Commission's Notice of Proposed Rulemaking ("NPRM"), FCC 94-272, released November 8, 1994.

The NPRM (§ 9) proposes to amend § 2.106 of its rules (the Table of Frequencies Allocations) to allocate to Fixed and Mobile services the 50 MHz of spectrum recently transferred from Federal Government to private use.<sup>1</sup> Without providing any rule text, the NPRM proposes "to allow technical flexibility in the provision of services . . . consistent with not causing interference to other users," apparently meaning other radio service licensees (§ 10). This flexibility would apply particularly to

<sup>1</sup> Those 50 MHz consist of three segments: 2390-2400 MHz, 2402-2417 MHz and 4660-4685 MHz. AT&T's Comments focus on the 2402-2417 MHz segment. In addition, AT&T supports allocation of 2390-2400 MHz to unlicensed PCS, which the NPRM (§ 14) recognizes as a possible approach.

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"channelization, signal strength, modulation techniques and antenna characteristics" (id.).

AT&T opposes the proposals in the NPRM regarding the 2402-2417 MHz segment. That segment should remain available to Part 15 devices and thus should be allocated to such devices on a co-primary basis with whatever licensed services the Commission determines can share the band with them. In response to the Commission's Notice of Inquiry ("NOI") in this proceeding, commenters explained that spread spectrum Part 15 devices are widely used in retail, industrial and transportation applications, creating efficiencies reflected in lower prices and better service to customers, as well as by governmental and educational institutions. AT&T noted that that band is well-suited to support wireless communications among the portable computers used by the increasingly mobile work force. Moreover, as commenters on the NOI pointed out, the fact that the great majority of new product development in the computer-communications industry is focused on the 2.4 GHz band means that many other beneficial uses will emerge in the future. Finally, many commenters noted that their investment in developing Part 15 devices operating in the 2402-2417 MHz band was in justifiable reliance on the Commission action opening that band for that purpose. Therefore, any subsequent Commission action making that band unusable for Part 15 devices would be markedly unfair.

Only last month, in proposing to open the millimeter wave portion of the spectrum to licensed and unlicensed use, the Commission recognized that its decision "only a few years ago" opening certain unlicensed bands (including 2 GHz) to spread spectrum technology has "stimulated rapid commercial development of that technology so that today millions of spread spectrum devices are used by numerous businesses and other users for such diverse applications as remote reader reading, utility load management, voice-secure cordless telephones and local area networks."<sup>2</sup> The Commission should act in the present proceeding to ensure the continuing availability of those very benefits.

Thus, AT&T urges the Commission to allocate the band to Part 15 usage on a co-primary basis with any licensed services the Commission determines could effectively use the band. This usage would remain secondary to Industrial, Scientific and Medical ("ISM") devices and amateur operation, but the co-primary status means that the Part 15 devices and licensed services would have to accept interference from each other. Neither could force the other to shut down.

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<sup>2</sup> Amendment of Parts 2 and 15 of the Commission's Rules to Permit Use of Radio Frequencies Above 40 GHz for New Radio Applications, ET Docket No. 94-124, Notice of Proposed Rulemaking, FCC 94-273, released November 8, 1994, at ¶ 7.

The Commission should not implement the maximum technical flexibility proposal in the NPRM because it would jeopardize the public benefits that have been produced by developments involving Part 15 devices. Moreover, it is premature. Although the Commission is required by statute to allocate the 50 MHz by February 10, 1995,<sup>3</sup> it is not required to adopt technical rules by that date. Rather, in addition to the allocation of spectrum, the Budget Act merely mandates that by the February 10, 1995 date the Commission "propose regulations to assign such frequencies."<sup>4</sup> "Assignment" is defined as "an authorization given to a station licensee to use specific frequencies or channels."<sup>5</sup> The technical rules applicable to 2402-2417 MHz can best be determined in the notice and comment process governing the assignment rules. That process will afford the Commission and interested parties the time needed for detailed consideration of the issues.

The NPRM (§ 11) correctly recognized that the minimum technical standards approach "may be difficult to implement given certain factors that are unique to these bands" (NPRM, § 11). This assessment is an understatement

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<sup>3</sup> Omnibus Budget Reconciliation Act of 1993, § 6001(a)(3), codified as 47 USC § 925(a) ("Budget Act").

<sup>4</sup> 47 USC § 925(a).

<sup>5</sup> 47 USC § 921(2).

as to the 2402-2417 MHz band. In fact, the NPRM concedes that the presence of ISM equipment, spread spectrum Part 15 devices, and other non-Government users presents "a particularly challenging environment" so that equipment operating at 2402-2417 MHz "must use transmission schemes that are extremely robust and versatile" (§ 18). These factors establish that precise technical rules are needed if the 2402-2417 MHz band can be made to accommodate any licensed radio services along with existing users. According, the proposal for broad technical flexibility in the 2402-2417 MHz band should not be adopted.

The Commission's recognition of use of this band by spread spectrum Part 15 devices led it to request comment on three possible relationships between those devices and licensed services: (1) eliminating the Part 15 devices so as to avoid any potential conflict with licensed services; (2) maintaining Part 15 use and implementing licensed services; and (3) maintaining Part 15 use while limiting licensed use (NPRM, § 18)). Option (1) is contrary to the public interest as well as the Commission's invitation of Part 15 devices into the band. Option (2) is inconsistent with the Commission's technical flexibility proposal because Part 15 devices could not survive in such an environment, and for that reason is also contrary to the public interest. Option (3) should be chosen because it calls for development of technical rules permitting licensed services and unlicensed devices to share the band.

The way to implement this third option is to adopt the procedure, on which the NPRM seeks comment (§ 19), under which licensed services would be subject to technical rules similar to the rules for unlicensed Part 15 devices. AT&T and others had made that proposal in comments on the NOI. That approach will reduce the likelihood of harmful interference between such services and Part 15 devices, thereby permitting sharing of the spectrum by both of them.

The final issue raised by the NPRM is the Commission's proposal to make the spectrum available to licensed services by means of competitive bidding "to the extent possible and practical" (§ 10). With that caveat, AT&T has no objection to this proposal. AT&T does suggest, however, that the usefulness of spectrum auctions in the 2402-2417 MHz band will depend heavily on the applicable technical rules. Therefore, AT&T urges the Commission to defer decision on this issue until more is known regarding how those bands can be used.

#### CONCLUSION

The Commission should not adopt the proposal in the NPRM to allocate 2402-2417 MHz generally to Fixed and Mobile services. Rather, that band should be allocated to Part 15 devices on a co-primary basis with licensed services. The Commission should not decide in favor of flexible technical rules at this time, but instead, by February 10, 1995, propose technical rules supporting the

allocation recommended by AT&T in these comments. A decision on competitive bidding should be made after those technical rules exist.

Respectfully submitted,

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